

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A vector comprising from 5' to 3':
 - a) a packaging sequence;
 - b) a heterologous insert sequence or restriction sites for insertion of a heterologous sequence; and
 - c) a 3' long terminal repeat (LTR) sequence comprising a rare cutter restriction site selected from the group consisting of: a NotI site, a SfiI site, a PacI site and a P1-SceI site ~~proviral recovery sequence selected from the group consisting of at least one recombinase site, at least one rare cutter restriction site and combinations thereof,~~
wherein at least two codons of the packaging sequence are altered so as to reduce formation of fusion polypeptides encoded by the packaging sequence or a portion thereof, and the heterologous insert sequence.
2. (Original) The vector of claim 1, wherein at least two ATG codons of the packaging sequence have been altered.
3. (Original) The vector of claim 2, wherein the ATG initiation codon of the packaging sequence and at least one internal ATG codon of the packaging sequence have been altered.
4. (Original) The vector of claim 1, wherein the packaging sequence is a *gag* sequence.

5. (Original) The vector of claim 4, wherein the *gag* sequence is an amino-terminal portion of the *gag* gene.

6. (Original) The vector of claim 4, wherein the *gag* sequence comprises the nucleotide sequence of SEQ ID NO:2, or a portion thereof.

7. (Original) The vector of claim 3, wherein at least two internal ATG codons of the packaging sequence have been altered.

8. (Original) The vector of claim 3, wherein the internal codon which is altered is the codon at residues 1097-1099 of SEQ ID NO:1.

9. (Original) The vector of claim 3, wherein the internal codon which is altered is the codon at residues 1589-1591 of SEQ ID NO:1.

10. (Original) The vector of claim 3, wherein the internal codon at residues 1097-1099 and the internal codon at residues 1589-1591 of SEQ ID NO:1 have been altered.

11. (Original) The vector of claim 2, wherein one, two or all of the nucleotides of the ATG codon(s) have been altered.

12. (Original) The vector of claim 1, wherein the vector includes a heterologous insert sequence.

13.-23. (Cancel)

24. (Previously presented) The vector of claim 1, further comprising a bacterial replicon.

25. (Previously presented) The vector of claim 24, wherein the bacterial replicon is less than 1.6 kb in size.

26. (Previously presented) The vector of claim 26, wherein the bacterial replicon further comprises a selectable bacterial marker sequence.

27.-33. (Cancel)

34. (Previously presented) The vector of claim 26, wherein the bacterial marker sequence is a bleomycin marker sequence.

35. (Previously presented) The vector of claim 25, wherein the bacterial replicon is less than 1.4 kb in size.

36. (Previously presented) The vector of claim 35, wherein the bacterial replicon is less than 1.2 kb is size.

37. -46. (Cancel)

47. (Currently amended) The vector of claim 1, wherein the ~~proviral recovery sequence~~ is the 3' LTR further comprises at least one recombinase site ~~and at least one rare cutter restriction site.~~

48.-49 (Cancel)